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Mindfulness Training for Judges:

Mind Wandering and the Development of Cognitive Resilience

Scott L. Rogers, Chris McAliley & Amishi P. Jha

The benefits of mindfulness practices for lawyers have been the subject of broad discussion within the profession for a number of years. Increasingly, this discussion has expanded to include judges and the work of the judiciary. In this article we explore more deeply the relevance of mindfulness to judges, and in particular, how it can support their resilience, health, and well-being, as well as their cognitive functioning.

We hope to educate and support judges who would like to gain greater mastery over their cognitive capacity and emotional well-being. Recognizing that the full breadth of this subject is beyond an article of this length, we focus on a primary vulnerability to which we are all susceptible but which can be especially consequential for judges in their high-stakes world of decision making: mind wandering. We consider some ways this vulnerability may limit judges' performance and well-being and review a growing body of scientific research, which examines the benefits of mindfulness training to mitigate this vulnerability by helping to bolster attention and working memory capacity. We then offer simple mindfulness practices, which have been found to be useful in developing attention and working memory capacity, which we term "skills" as they may be developed through ongoing mindfulness practice.

A BRIEF HISTORY OF MINDFULNESS AND THE JUDICIARY

In 1987, Jon Kabat-Zinn, founder of the highly regarded mindfulness-training program known as Mindfulness-Based Stress Reduction (MBSR), taught an eight-week MBSR course to a group of trial judges from Western Massachusetts.¹ This may mark the first time mindfulness was offered specifically for members of the legal profession. That training focused on offering mindfulness-based tools for managing job stress. The program was well received and several judges who participated were inspired to write a book on judicial wellness.²

Notwithstanding this early introduction of mindfulness to judges, it took some twenty years for mindfulness training to more robustly emerge on the judicial scene. Meanwhile, some

judges took an early lead. In the 1990s, Ronald Greenberg, sitting on the Superior Court of California, penned a piece for the *New York Times* on the value of meditation for judges, and in 2002, law professor Evan Seamone wrote "Judicial Mindfulness" for the *University of Cincinnati Law Review*.³ In time, Alan Gold, a federal district court judge, Judge Greenberg, Thelton Henderson, a federal district court judge, Donn Kessler, an Arizona appellate court judge, and Michael Zimmerman, a former Utah Supreme Court Justice, began speaking about mindfulness with members of the legal profession, including judges, law faculty, and lawyers.⁴ Since 2015, Judge Carroll Kelly, administrative judge of the Domestic Violence Division of the Miami-Dade County Courts, has been coordinating programming and introducing mindfulness to judges.

In 2011, Judge Gold began writing and talking about the value of mindfulness to judges and lawyers, especially as it relates to their health and enhancing greater civility in the legal profession.⁵ Gold, inspired by the Ninth Circuit's focus on health and wellness,⁶ discussed the importance of mindfulness with Joel Dubina, then chief judge of the Eleventh Circuit Court of Appeals, who in 2013 included mindfulness training at that Circuit Court's annual judicial conference. Since then, mindfulness trainings have become a staple of many federal Circuits' annual conferences, including the First, Sixth, Ninth, and Tenth. The same has been true for bankruptcy court and federal district court judicial conferences, as well as those of many state and local courts. Notably, the National Judicial College regularly offers mindfulness training programs for judges, including its annual four-day "Mindfulness for Judges" program.⁷

Mindfulness became more firmly rooted in the judiciary in 2011 when federal judge Jeremy Fogel became the director of the Federal Judicial Center and facilitated the inclusion of mindfulness in many judicial programs, including some of those already mentioned. In 2016, he penned a flagship article, "Mindfulness and Judging," that thoughtfully sets forth the importance of mindfulness to the work of judges,⁸ which gar-

Footnotes

1. S. Rogers, *Mindfulness in Law*, in THE WILEY-BLACKWELL HANDBOOK OF MINDFULNESS 487 (Amanda Le et al. eds., 2014); L. KABAT-ZINN, COMING TO OUR SENSES (Hyperion ed., 2006).
2. JUDICIAL WELLNESS: A STRESS MANAGEMENT GUIDE FOR AND BY JUDGES (National Judicial College eds., 2d ed. 1996).
3. E. Seamone, *Judicial Mindfulness*, 70 U. CIN. L. REV. 1023 (2002).
4. S. Rogers, *Mindfulness in Law*, in THE WILEY-BLACKWELL HANDBOOK OF MINDFULNESS 487 (Amanda Le et al. eds., 2014); Many of these events were in conjunction with the Center for Contemplative Mind in Society and the Florida and Arizona state bar associations.

5. A. Gold, *Mindfulness: A Challenge for our Times*, DADE COUNTY BAR ASS'N. BULL., May 2012.
6. Ninth Circuit Wellness Committee, *A Wellful Guide for Judges of the Ninth Circuit Courts*, https://www.americanbar.org/content/dam/aba/administrative/lawyer_assistance/ls_colap_2015_Wellness_Guide.authcheckdam.pdf.
7. *Mindfulness for Judges*, <http://www.judges.org/mindfulness-for-judges/> (last visited June 16, 2017).
8. J. Fogel, *Mindfulness and Judging*, Federal Judicial Center (2016), <https://www.fjc.gov/sites/default/files/2016/Mindfulness%20and%20Judging.pdf>.

nered the attention of the *Wall Street Journal's* Law Blog.⁹ Other articles on mindfulness have appeared from time to time that were directed to judges,¹⁰ including those written by judges who practice mindfulness.¹¹ A complete treatment of the history and present-day state of mindfulness training for judges is beyond the scope of this article. Rather, we set forth these instances to offer a general sense of the judiciary's accelerating engagement in the subject.

Some judges who have been introduced to mindfulness training have returned to their courts wanting to share that information with their colleagues and court staff. Federal district court judge Casey Rogers, for example, participated in a mindfulness training at the 2013 Eleventh Circuit conference and thereafter initiated similar training for judges and court staff at the Northern District of Florida's biannual retreat and for the chapter of the American Inns of Court in that district. Judge Laurel Isacoff, a bankruptcy court judge, has collaborated on mindfulness presentations at national bankruptcy court conferences and coordinated a mindfulness workshop for members of her court. Judges engaged in the practice of mindfulness have also pondered ways to bring its benefits into the courtroom. Some judges who practice mindfulness aspire to model some of its benefits and to help foster a more "compassionate courtroom."¹² Judges have reported practicing mindfulness before entering the courtroom, during recess, and even, as is discussed below, while on the bench.

On at least one occasion, a judge expressly introduced mindfulness into the courtroom in a legal context. In 1987 while presiding over the high-stakes prosecution of Amy Carter and Abbe Hoffman, Judge Richard Connon, who had been among the group of judges trained by Kabat-Zinn in 1987, included a mindfulness instruction in the jury charge:¹³

*It is important that you understand the elements of the case. It is also important that you pay attention with the terminology that I became aware of some time ago of mindful meditation. Mindful meditation is a process by which you pay attention from moment to moment.*¹⁴

THE IMPORTANCE OF CLARITY TO JUDICIAL DECISION MAKING

People long for clarity, clarity of thought and emotion. This is certainly true for judges. They are charged with discerning what happened (the facts) and what the law says about what happened. Almost by definition, lawsuits arise when the facts, the law, or both are unclear. Judges search for clarity in the

midst of conflict between litigants and lawyers, as well as contradictory and emotionally charged evidence. This search is a cognitive, analytical process; one that requires an ordered review and sorting of the facts and the law, with great attention to detail. But it can call on more than the intellect. Often judges must check with their gut. What is fair? Who should be believed? Do the circumstances call for mercy or punishment?

Judges are, of course, human and their search for clarity can be clouded by their own emotional responses to disturbing evidence or behavior, frustration with lawyers, feelings of stress, and being overwhelmed with their workload and deadlines. And, like everyone else, emotions from judges' personal lives can follow them to work. Physical limitations and discomforts can further draw attention away from the tasks at hand.

A mindful state can be understood as "a mental mode characterized by attention to present moment experience without conceptual elaboration or emotional reactivity."¹⁵ Conceptual elaboration refers to the unbidden internal narrative that often accompanies an experience. If, for example, an attorney's closing argument made reference to a scene in *To Kill a Mockingbird*, a listener might have any number of gratuitous thoughts, such as "you've got to be kidding me," or "this guy wishes he was Gregory Peck," or "I've been meaning to read *Go Set a Watchman*." Mind wandering like this distracts the listener from the intended focus and is rarely helpful. Moreover, these gratuitous thoughts can carry an emotional charge. For example, a flash of memory from an inspiring scene of the movie could cause a spontaneous elevation of mood, or negative judgments of a litigant could lead to feelings of aversion toward them.

The mindfulness practices discussed below are intended to enhance the ability to sustain one's focus on the task-at-hand and be less likely to carry on an internal dialogue or become immersed in a charged emotional state, borne by a wandering mind. By "slowing down one's mental processes enough to allow one to notice as much as possible about a given moment or situation, and then to act thoughtfully based on what one has noticed,"¹⁶ emotional tugs and impulses are recognized as such and are less likely to lead to biased and unwarranted assumptions and decisions. As the mindfulness teacher and

"Judges search for clarity in the midst of conflict . . . and emotionally charged evidence"

9. J. Gershman, *Federal Judge Preaches the Value of Mindfulness*, WALL ST. J. (Mar. 23, 2016), <https://blogs.wsj.com/law/2016/03/23/federal-judge-preaches-the-value-of-mindfulness/>.

10. APA Judicial Notebook, *Could Mindfulness Improve Judicial Decision Making?* (2014).

11. C. McAliley, *Mindfulness on the Bench*, 90 FLA. BAR J. 4 (April 2016); G. Rohr, *The Mindful Judge*, LION'S ROAR (Nov. 6, 2017), <https://www.lionsroar.com/the-mindful-judge/>; W. Caprathe, *The Mindful Lawyer and Judge*, 18 JUD. DIVISION REC. 35 (2014).

12. N. Koppings-Pavars, *Mindfulness for Judges Promotes Compassion in Courtrooms*, ADVOC. DAILY, <https://www.advocatedaily.com/>

[nicolle-kopping-pavars-mindfulness-for-judges-promotes-compassion-in-courtrooms.html](https://www.advocatedaily.com/nicolle-kopping-pavars-mindfulness-for-judges-promotes-compassion-in-courtrooms.html).

13. J. KABAT-ZINN, *COMING TO OUR SENSES*, (Hyperion, 2005), www.themindfuljudge.com/charge.html.

14. *Id.*

15. A.P. Jha et al., *Examining the Protective Effects of Mindfulness Training on Working Memory Capacity and Affective Experience*, 10 EMOTION 54 (2010).

16. J. Fogel, *Mindfulness and Judging*, Federal Judicial Center 2 (2016).

“by devoting some time to mindfulness practices, judges may be able to increase their cognitive capacity”

author Sharon Salzberg offers, “[m]indfulness is being able to tell the difference between the story we are telling ourselves of what is taking place and what is actually taking place.”¹⁷

Mindfulness practices cultivate skills and capacities that are associated with clarity and are unquestionably useful to decision makers. As previously noted, one such skill is the abil-

ity to *focus and sustain attention* on an object, such as a testifying witness, with minimal distraction. A second skill involves working memory and is the ability to *hold in awareness* one’s experience as it is happening. As an example, when a judge listens to a witness she might maintain awareness not only of her evaluation of the credibility and legal significance of that testimony but also any internal emotional reaction to that testimony and any intervening irrelevant thoughts.

The development of these skills is, of course, easier said than done. Mindfulness practices may seem incongruous to judges, who by necessity prize efficiency. Stressed and overworked judges may understandably feel they do not have the time — *the luxury* — of slowing down their thinking, much less sitting still in meditation, and doing “nothing.” But, the experience of many in the legal profession, and a growing body of science, suggests that by devoting some time to mindfulness practices,¹⁸ judges may be able to increase their cognitive capacity, in particular their capacity for clarity of thought and the regulation of emotion, and enhance their sense of well-being in ways that support their professional performance.¹⁹

MINDFULNESS

Mindfulness has been described as the awareness that arises from “paying attention in a particular way: on purpose, in the present moment, and non-judgmentally.”²⁰ Mindfulness practices, which help cultivate a mental mode of mindfulness, can be understood as “a set of attention-based, regulatory and self-inquiry training regimes cultivated for various ends, including well-being and psychological health.”²¹ The mindfulness practices introduced below deliberately engage the cognitive resources of attention by narrowly directing attention to a spe-

cific object, such as the breath, or more broadly to a field of larger expanse. Through regular engagement in these practices, many of the benefits of mindfulness may be realized.

The practice of mindfulness is easy to learn. It calls for a deliberate engagement of attention and steady cultivation of awareness to what you are experiencing, moment by moment. Although the instruction is simple, many find it exceedingly difficult to sustain this attentional focus beyond a few moments. To offer an example, while you have been reading this article you likely have been distracted, perhaps by people, sounds, physical sensations. and, of course, your own wandering thoughts; yet you probably are not aware of all instances when you shifted your attention away from the article. This experience of “mind wandering” is commonplace, it happens more often than most people realize and is consequential to focus and to well-being.²² Mindfulness practices strengthen our ability to notice that our mind has wandered away from the object of attention, e.g., *this article*, and deliberately redirect our attention back to the intended object. And, with practice, we strengthen our ability to sustain our focus, with less distraction, on the task at hand.²³

You may have also experienced *perspective narrowing* as you have read this article. This is associated with mind wandering and can be more subtle, often completely escaping our recognition. That is, as you have been reading this article, thoughts probably arose about its content that you automatically accepted, in a fixed way, as true or false, without your conscious recognition that you assigned those values to the content. The same may have been true with any feelings you may have about the content. Mental and emotional events often take place “in the background,” beyond our awareness, yet they may play a role in our decision making. When this happens, our perspective is narrower.

Mindfulness practice can address this by developing *meta-awareness*, which is an explicit noticing of the processes of thinking, feeling, and perceiving.²⁴ With greater meta-awareness, we mentally “step back,” like a third-party witness to our own thoughts, feelings, and sensations and note them arising and passing away. This recognition, or *noticing*, of thoughts and feelings is a prerequisite to one’s ability to investigate them and to choose what truth to assign them. Thoughts are not facts²⁵ and feelings are not always a reliable basis on which to judge people and circumstances. As judges perceive litigants, legal arguments, and evidence, their capacity to hold in aware-

17. S. SALZBERG, *REAL HAPPINESS: THE POWER OF MEDITATION* (Workman Publishing Company, Inc. eds., 2010).

18. P. Singerman, *The Return on Investment from My Study and Practice of Mindfulness*, 90 FLA. BAR J. 26 (2016).

19. A. Gold, *The Art of Being Mindful in the Legal World: A Challenge for Our Times*, 90 FLA. BAR J. 16 (2016).

20. J. KABAT-ZINN, *WHEREVER YOU GO THERE YOU ARE: MINDFULNESS MEDITATION IN EVERYDAY LIFE* (Hyperion eds., 1994).

21. A. Lutz et al., *Investigating the Phenomenological Matrix of Mindfulness-related Practices from a Neurocognitive Perspective*, 70 AMER. PSYCHOLOGIST 632 (2015).

22. M. A. Killingsworth & D. T. Gilbert, *A Wandering Mind Is an Unhappy Mind*, 330 SCI. 932 (2010).

23. It is important to distinguish mind wandering that is unintentional and the subject of this paper from day dreaming, which can have its own benefits. See P. Seli, et al., *On the Necessity of Distinguishing Between Unintentional and Intentional Mind Wandering*, 27 PSYCHOL. SCI. 685 (2016). See also, B. Baird, et al., *Inspired by Distraction: Mind Wandering Facilitates Creative Incubation*, 23 PSYCHOL. SCI. 1117 (2012).

24. C. Dahl, A. Lutz & R. Davidson, *Reconstructing and Deconstructing the Self: Cognitive Mechanisms in Meditation Practice*, 19 TRENDS IN COGNITIVE SCI. 515 (2015).

25. Segal, et. al., *Mindfulness Based Cognitive Therapy for Depression*, Breathing Space p. 262 (2002), <http://www.breathingspacelondon.org.uk/resources-for-teachers/?cmd=download-file&vpath=/mbct/participant-course-notes/&vfile=all-handouts-for-session-6.pdf>.

ness the fullness of their experience fosters clarity of thought and depth of analysis.

The following two foundation-level mindfulness practices have been found to be helpful in mitigating these vulnerabilities. The first, a “focused-attention” practice, involves focusing attention on an object, like the breath,²⁶ and when one realizes that the mind has wandered, bringing attention back to the object. The second exercise, “open monitoring,” involves expanding the field of awareness in an effort to notice whatever passes through the senses (touch, taste, smell, vision, and hearing) and the mind (thoughts and feelings). It can be quite challenging to simultaneously hold in awareness those experiences that arise through the various channels of perception and cognition, and therefore, for most people, this is a more advanced practice. Practitioners typically begin with the “focused attention” exercise, as it is a more readily achievable way of stabilizing attention. There are any number of variations on these practices, a few of which we offer later in this article. These practices can be self-guided, that is, done on one’s own, or may be guided by another. Below are brief instructions to self-guide each practice. You can find a list of mindfulness resources by following this link: <http://themindfuljudge.com/courtreview.html>.

MINDFULNESS PRACTICE

For both practices, it can be helpful to begin by establishing a comfortable sitting posture, one that is upright and stable, and to lower or close the eyes, whichever is preferred.

Focused Attention Practice Instructions

1. Bring your attention to the sensations of the breath, flowing through the body—following the in-breath, following the out-breath.
2. Rest your attention on the flow of the breath, with the intention of keeping it there.
3. When you notice your mind wandering, bring your attention back to the breath.
4. Do this for a few moments or for as long as a you choose, after which you can lift your gaze or open your eyes.

Key to this practice is noticing when the mind wanders. As we will explain below, research has found this practice to help develop concentration and focus and reduce mind wandering. When mind wandering is reduced, one can better regulate the emotional ups and downs that can accompany unbidden thoughts of future and past.²⁷

People new to mindfulness often have the mistaken belief that the purpose of mindfulness meditation is to gain the capacity to eliminate all thought; that is, to “empty the mind.” To the

contrary, this is not possible. Mindfulness practices involve noticing and observing the activity of the mind, not eliminating it.

Open Monitoring Practice Instructions

1. Bring your attention to the sensations of the breath, flowing through the body—following the in-breath, following the out-breath.
2. Rest your attention on the flow of the breath.
3. When you feel your attention has stabilized on the breath, expand your awareness and notice sensations arising in the body.
4. When you feel your attention stabilized on the sensations of the body, expand your awareness and notice whatever arises in the field of awareness—sounds, temperature, aroma, even thoughts and feelings. As thoughts arise try to notice and then release them.
5. Observe when your attention is drawn, ideally without engaging in an internal commentary about this. Your attention is fluid and open to whatever arises in the field of awareness.
6. Do this for a few moments or for as long as a you choose, after which you can bring your attention back to your breathing and then, after a few moments, lift your gaze or open your eyes.

This exercise is also known as “choiceless awareness” as there is no pre-determined object of attention. It is a practice that can be helpful for the cultivation of resilience. By developing the ability to be attentive, with equanimity, to whatever passes through the senses,²⁸ one becomes less reactive in the face of distressing and undesirable stimulation (including thoughts) that might otherwise result in emotional reactivity and lead to unhelpful conduct and speech. The exercise develops our capacity to stay steady and present amid the variability of thoughts, feelings, and sensations, including those that are uncomfortable. Any experience that arises becomes the object of attention.²⁹

The following discussion on the science of mindfulness addresses research findings on the efficacy of these and other mindfulness practices and their relationship to mind wandering.

THE SCIENCE OF MINDFULNESS

Research on mindfulness training has had exponential

“Mindfulness practices involve noticing and observing the activity of the mind, not eliminating it”

26. The object of attention, either in formal practice or everyday experience, can be anything you choose, such as listening to a witness or music, tasting and enjoying food, and sensing one’s footsteps or other sensations of the body.

27. A. B. Morrison et al., *Taming a Wandering Attention: Short-form Mindfulness Training in Student Cohorts*, 7 *FRONTIERS IN HUMAN NEUROSCIENCE* 897 (2014); J. Rooks et al., *We Are Talking About Practice: The Influence of Mindfulness vs. Relaxation Training on*

Athletes’ Attention and Well-being over High-demand Intervals, 1 *J. OF COGNITIVE ENHANCEMENT* 141 (2017).

28. See L. Riskin, *Knowing Yourself: Mindfulness*, in *THE NEGOTIATOR’S FIELDBOOK* 245 (Christopher Honeyman & Andrea K. Schneider eds., American Bar Association 2006).

29. A. Lutz et al., *Attention Regulation and Monitoring in Meditation*, 12 *TRENDS IN COGNITIVE SCI.* 163 (2008).

“Mind wandering . . . dampens the sensory input that is received from the environment, sours mood, and increases errors on the task-at-hand.”

psychological disorders such as depression, anxiety,³⁴ and PTSD.³⁵ There has also been recent interest in investigating the benefits of mindfulness training on social and relational dynamics, such as those found in workplace settings.³⁶ While the range of benefits are quite broad and may leave one questioning the apparent panacea-like claims made regarding mindfulness training, cognitive neuroscientists are actively seeking to uncover the brain mechanisms by which such a broad range of benefits may arise.³⁷ In our treatment of this topic, the broad scientific literature is presented in a narrowed and more directed form.

Mind Wandering and Mindfulness Training

Research is exploring the extent to which the mind wanders, with some research suggesting that mind wandering comprises as much as 50% of waking life.³⁸ Mind wandering, defined as having off-task thoughts during an ongoing task or activity, dampens the sensory input that is received from the

growth over the past 10 years.³⁰ There are now thousands of research studies and federal grants devoted to understanding if and how mindfulness training may benefit the mind, the body, and relationships. Reported benefits have been quite wide-ranging, from reductions in physiological symptoms of somatic disorders such as chronic pain,³¹ fibromyalgia,³² and arthritis,³³ to diminution in the severity and recurrence of

environment,³⁹ sours mood,⁴⁰ and increases errors on the task-at-hand.⁴¹ Stress can increase the frequency of mind wandering.⁴²

Several studies have addressed the effect of mindfulness training on mind wandering. In one study conducted on undergraduate cohorts,⁴³ fifty-eight participants were recruited and split into two groups. One group received mindfulness training and the other did not. To make the program accessible for busy students, it was purposefully kept quite short, with the total training time of only seven hours over seven weeks. At the start of the semester and before the training began, all students were asked to complete a computerized test to index their attention and mind wandering. Intermittently, the task was interrupted by a question on the screen asking if their attention was “on-task” or “off-task.” All of the students performed at roughly the same level. Nine weeks later, when the students were tested again, performance gaps emerged between those who received mindfulness training and those who did not. The control group who received no training fared worse than they had originally. They had more performance errors and reported greater mind wandering while the students who received mindfulness training had fewer performance errors and reported less mind wandering.

There were two surprising results of this study. The first was that the pressures of the academic semester seemed to degrade attention over the course of nine weeks. While other studies had reported that mood and well-being decline in students over the semester,⁴⁴ this was the first study to track changes in the neurocognitive system of attention, and it found that this too degraded over the semester. This pattern of attentional degradation over high-stress intervals has also been observed in predeployment soldiers,⁴⁵ athletes during pre-season train-

30. N. T. Van Dam et al., *Mind the Hype: A Critical Evaluation and Prescriptive Agenda for Research on Mindfulness and Meditation*, 13 *PERSP. PSYCHOL. SCI.* 36 (2018).
31. F. Zeidan & D.R. Vago, *Mindfulness Meditation-based Pain Relief: A Mechanistic Account*, 1373 *ANNALS N. Y. ACAD. SCI.* 114 (2016).
32. A. L. Adler-Neal & F. Zeidan, *Mindfulness Meditation for Fibromyalgia: Mechanistic and Clinical Considerations*, 19 *CURRENT RHEUMATOL. REP.* 59 (2017).
33. F. A. Fogarty et al., *The Effect of Mindfulness-based Stress Reduction on Disease Activity in People with Rheumatoid Arthritis: A Randomized Controlled Trial*, 74 *ANNALS RHEUMATIC DISEASES* 472 (2015).
34. S. B. Goldberg et al., *Mindfulness-based Interventions for Psychiatric Disorders: A Systematic Review and Meta-analysis*, 59 *CLINICAL PSYCHOL. REV.* 52 (2018); M. Goyal et al., *Meditation Programs for Psychological Stress and Well-being: A Systematic Review and Meta-analysis*, 174 *JAMA INTERNAL MED.* 357 (2014); S. G. Hofmann & A.F. Gomez, *Mindfulness-Based Interventions for Anxiety and Depression*, 40 *PSYCHIATRIC CLINICS N. AM.* 739 (2017).
35. T. L. Hopwood & N.S. Schutte, *A Meta-analytic Investigation of the Impact of Mindfulness-based Interventions on Post-traumatic Stress*, 57 *CLINICAL PSYCHOL. REV.* 12 (2017).
36. D. J. Good et al., *Contemplating Mindfulness at Work: An Integrative Review*, 42 *J. MGMT* 114 (2016).
37. A. Lutz et al., *Investigating the Phenomenological Matrix of Mindfulness-related Practices from a Neurocognitive Perspective*, 70 *AM. PSYCHOLOGIST* 632-58 (2015).
38. M. A. Killingsworth & D. T. Gilbert, *A Wandering Mind Is an*

Unhappy Mind, 330 *SCI.* 932 (2010).

39. J. W. Kam & T.C. Handy, *The Neurocognitive Consequences of the Wandering Mind: A Mechanistic Account of Sensory-motor Decoupling*, 4 *FRONTIERS IN PSYCHOL.* 725 (2013).
40. F. J. Ruby et al., *How Self-generated Thought Shapes Mood—The Relation Between Mind-wandering and Mood Depends on the Socio-temporal Content of Thoughts*, 8 *PLOS ONE* (2013).
41. Day-dreaming, referred to in the psychological literature as *conscious internal reflection*, refers to consciously and willfully directing one's attention to the free flow of spontaneous thoughts, whether about the past or the future. It is well-established that this type of mental meandering boosts positive mood and creativity. See R. L. McMillan et al., *Ode to Positive Constructive Day-dreaming*, 4 *FRONTIERS IN PSYCHOL.* 626 (2013).
42. J. B. Banks & A. Boals, *Understanding the Role of Mind Wandering in Stress-related Working Memory Impairments*, 31 *COGNITION & EMOTION* 10231030 (2017).
43. A. B. Morrison et al., *Taming a Wandering Attention: Short-form Mindfulness Training in Student Cohorts*, 7 *FRONTIERS IN HUMAN NEUROSCIENCE* 897 (2014).
44. R. W. May et al., *School Burnout: Diminished Academic and Cognitive Performance. Learning and Individual Differences*, 42 *LEARNING & INDIVIDUAL DIFFERENCES* 126 (2015).
45. A. P. Jha et al., *Minds “at Attention”: Mindfulness Training Curbs Attentional Lapses in Military Cohorts*, 10 *PLOS ONE* (2015) ; A. P. Jha et al., *Practice Is Protective: Mindfulness Training Promotes Cognitive Resilience in High-stress Cohorts*, 7 *MINDFULNESS* 1(2016).

ing,⁴⁶ and youth incarcerated over the course of several months.⁴⁷ While no studies have yet tracked the costs of a long trial to lawyers' and judges' attention, one may reasonably expect that their ability to sustain attention may also be depleted over time, with an increase in mind wandering.

The second result of note was that the mindfulness program, it seemed, protected participants from the inevitability of worsening attention and mind wandering as the semester went on. Mindfulness training strengthened attention and protected against increases in mind wandering. In line with these results, other recent studies conducted with active-duty military service members have found that those who engaged in mindfulness practices for twelve minutes or more every day kept their focus and mood stable over eight weeks of predeployment training.⁴⁸ The more an individual practiced, the better he or she fared, with those who practiced the most showing the most robust improvements in cognitive functioning and mood by the end of the study.⁴⁹ Thus, mindfulness training may strengthen voluntary sustained attention and protect against mind wandering.⁵⁰

Many studies have also been conducted to determine if brain structure and function are altered by mindfulness training. There is, for example, growing evidence that mindfulness training produces tractable changes in key nodes of brain networks involved in attention.⁵¹ In one recent study,⁵² participants completed a five-minute functional brain scan one month before and two weeks after receiving a three-day intensive mindfulness-training program or a comparison relaxation training program. While in the scanner, participants' only instruction was to rest. Brain scans showed that the ebb and flow of brain activity in two brain regions was more synchronized after training for only the mindfulness-training group. The two regions were the left dorsolateral prefrontal cortex, a region known to be involved in attentional control, and the posterior cingulate cortex, a region frequently activated during episodes of mind wandering. The authors concluded that brain networks of attention may be strengthened and better able to dynamically control mind wandering. This study did not explicitly index attentional functioning or inquire about participants' mind-wandering and thus more study is needed. Nonetheless, collectively the research litera-

ture examining attentional task-performance and brain-imaging metrics is gathering evidence that mindfulness training strengthens attention and reduces performance errors associated with mind wandering.⁵³

Performance errors may not be the most troubling consequence of mind wandering. One study suggests that the tendency of the mind to get hijacked away from the present moment may have costs for the body as well. A 2013 study⁵⁴ reported that people who self-reported a greater propensity toward mind wandering had shorter telomeres, which are caps at the ends of chromosomes, than those whose minds were more often anchored in the present. Shorter telomeres are associated with shorter lifespans. Thus, mind wandering may have life-and-death consequences for our cells. A recent study examined whether mindfulness training may influence telomere length. The logic was that if mindfulness training reduces the mind's tendency to wander, perhaps the biological cascade that may relate mind wandering to shortening of telomeres could be thwarted. Indeed, this is what was observed.⁵⁵

Thus, there is growing evidence that mindfulness training may protect brain functions tied to performance, attention, mood, as well as cell longevity. This has significance for judges whose work stress is likely to spur mind wandering. Engaging in mindfulness training may be particularly beneficial for judges who labor to maintain clarity and avoid error.

Mindfulness Training and Working Memory

Attention is part of a larger family of brain processes known as executive control. These processes ensure that current behavior aligns with one's goals. Another key system of executive control is working memory. This is the ability to maintain and manipulate information over very short intervals. It allows us to maintain our train of thought in a conversation, do simple math in our heads, regulate our mood, and keep differing perspectives in mind during decision mak-

"Mindfulness training strengthened attention and protected against increases in mind wandering."

46. J. Rooks et al., *We Are Talking About Practice: The Influence of Mindfulness vs. Relaxation Training on Athletes' Attention and Well-being over High-demand Intervals*, 1 J. COGNITIVE ENHANCEMENT 141 (2017).

47. N. R. Leonard et al., *Mindfulness Training Improves Attentional Task Performance in Incarcerated Youth: A Group Randomized Controlled Intervention Trial*, 4 FRONTIERS IN PSYCHOL. 792 (2013).

48. A. P. Jha et al., *Practice Is Protective: Mindfulness Training Promotes Cognitive Resilience in High-stress Cohort*, 7 MINDFULNESS 1 (2016); A. P. Jha et al., *Examining the Protective Effects of Mindfulness Training on Working Memory Capacity and Affective Experience*, 10 EMOTION 54 (2010).

49. A. P. Jha et al., *Examining the Protective Effects of Mindfulness Training on Working Memory Capacity and Affective Experience*, 10 EMOTION 54 (2010).

50. A. Lutz et al., *Attention Regulation and Monitoring in Meditation*, 12 TRENDS IN COGNITIVE SCI. 163 (2008); A. B. Morrison & A. P. Jha,

Mindfulness, Attention, and Working Memory, in HANDBOOK OF MINDFULNESS AND SELF-REGULATION 33-45 (Springer ed., 2015).

51. J. D. Creswell et al., *Alterations in Resting-State Functional Connectivity Link Mindfulness Meditation with Reduced Interleukin-6: A Randomized Controlled Trial*, 80 BIOLOGICAL PSYCHIATRY 53 (2016).

52. *Id.*

53. A. Lutz et al., *Investigating the Phenomenological Matrix of Mindfulness-related Practices from a Neurocognitive Perspective*, 70 AM. PSYCHOLOGIST 632 (2015); P. Malinowski, *Neural Mechanisms of Attentional Control in Mindfulness Meditation*, 7 FRONTIERS IN NEUROSCIENCE 8 (2013).

54. E. S. Epel et al., *Wandering Minds and Aging Cells*, 1 CLINICAL PSYCHOL. SCI. 75 (2013).

55. Q. A. Conklin et al., *Insight Meditation and Telomere Biology: The Effects of Intensive Retreat and the Moderating Role of Personality*, 70 BRAIN, BEHAVIOR & IMMUNITY 233 (2018).

“Under stress, working memory capacity is reduced so that less information can be kept in mind.”

ing.⁵⁶ In addition, higher working memory storage capacity corresponds with greater cognitive and emotional empathy.⁵⁷ Clearly, working memory is critical to the work of judges—to absorb, retain, and manipulate considerable information, often in real time, on the bench.

Unfortunately, working memory, like attention, is highly vulnerable to stress. Under stress, working memory capacity is reduced so that less information can be kept in mind,⁵⁸ and information processing becomes more susceptible to distraction and irrelevant information. There is growing evidence that over high-demand and high-stress intervals, working memory capacity is reduced. For example, in a 2017 study in pre-deployment soldiers, working memory was reduced over an eight-week interval. With reduced working memory, the ability to hold key information in mind for the task at hand may be compromised. Restrictions in the ability to maintain such information may lead to narrowing of perspective and emotionally reactive decision making.⁵⁹ In addition, decision making may become more reliant on pre-determined or past assumptions versus adaptive considerations of newly learned information.⁶⁰ Given the importance of working memory, there has been great interest in determining if it can be strengthened through mindfulness training, and several studies that found that, indeed, this training improves working memory and protects against its stress-related decline.⁶¹

MINDFULNESS ON AND OFF THE BENCH

The salutary effects of mindfulness practices on cognitive function, emotional balance, and our health and well-being has obvious relevance for judges, of whom much is expected. Judges know the stakes are high for the litigants and try to adjudicate lawsuits in a manner that leaves litigants with a sense of fairness.⁶² Yet in many instances there is no clear winner, and judges understand that, at most, they can reach their

“best” decision, not an objectively “right” decision. When trial judges must decide a credibility contest, in the absence of objective corroboration, they must choose who to believe, because finality is essential, all the while knowing they may get it wrong. And, because judicial demeanor and temperament are highly prized qualities of judges, they are expected to be even-tempered, to not get caught up in the emotionality of the parties, to accurately perceive (and convey their perception of) the positions of the parties, and to dispassionately assess the evidence and arguments without the distortion of habit, assumptions, and bias.

Judges do all of this keenly aware of the responsibility that comes with the privilege of their position. While most report feeling great satisfaction to participate in our judicial system and for the opportunity to positively impact others, they do work under stress. And, as we know all too well, persistent stress can take a toll on one’s physical and emotional well-being, lead to burnout, job dissatisfaction, and apathy, as well as erode performance and negatively impact professional and personal relationships.⁶³

So how might mindfulness practices help judges manage their duties? Below are two vignettes that illustrate some of the challenges common to judges. These are followed by suggested mindfulness practices that, with repetition and patience, can alter how judges navigate those challenges. Judges may find it particularly effective to engage in these practices daily, before the start of the work day, and we suggest they devote between 10 and 30 minutes to daily practice. There is no one universal prescription for the length or nature of an effective practice. As the Vietnamese Buddhist monk Thich Nhat Hanh said: “I do whatever works and change it when it no longer works.”⁶⁴ Mindfulness practitioners do report, however, that they greatly benefit from some form of regular practice, and that, generally speaking, they realize more benefit when they devote more time to the practice. Fortunately, mindfulness practices are very customizable.

It can also be quite helpful to briefly “drop into” these practices in the midst of the day, especially in challenging moments. The ability to benefit from these shorter practices

56. A. P. Jha, *Tracking the Time-course of Attentional Involvement in Spatial Working Memory: An Event-related Potential Investigation*, 15 COGNITIVE BRAIN RES. 61 (2002).

57. Z. Gao et al., *Working Memory Capacity of Biological Movements Predicts Empathy Traits*, 23 PSYCHONOMIC BULL. REV. 468 (2016).

58. K. Klein & A. Boals, *The Relationship of Life Event Stress and Working Memory Capacity*, 15 APPLIED COGNITIVE PSYCHOL. 565 (2001).

59. J. M. Hinson et al., *Impulsive Decision Making and Working Memory*, 29 J. OF EXPERIMENTAL PSYCHOL.: LEARNING, MEMORY, & COGNITION 298 (2003).

60. W. Hofmann et al., *Working Memory Capacity and Self-regulatory Behavior: Toward an Individual Differences Perspective on Behavior Determination by Automatic Versus Controlled Processes*, 95 J. OF PERSONALITY & SOC. PSYCHOL. 962 (2008).

61. A. P. Jha et al., *Examining the Protective Effects of Mindfulness Training on Working Memory Capacity and Affective Experience*, 10 EMOTION 54(2010); A. P. Jha et al., *Short-Form Mindfulness Training Protects Against Working Memory Degradation over High-Demand Intervals*, 1 J. OF COGNITIVE ENHANCEMENT 154 (2017); M. D.

Mrazek et al., *Mindfulness Training Improves Working Memory Capacity and GRE Performance While Reducing Mind Wandering*, 24 PSYCHOL. SCI. 776 (2013).

62. P. Casey, K. Burke & S. Leben, *Minding the Court: Enhancing the Decision-Making Process*, 49 CT. REV. 76 (2013); C. McAliley, *Mindfulness on the Bench*, 90 FLA. BAR J. 4 (2016).

63. J. Bendery, *Federal Judges Are Burned Out, Overworked and Wondering Where Congress Is*, HUFFINGTON POST, (Oct. 21, 2015), https://www.huffingtonpost.com/entry/judge-federal-courts-vacancies_us_55d77721e4b0a40aa3aaf14b; S. Lustig et al., *Burnout and Stress Among United States Immigration Judges*, 13 BENDER’S IMMIGR. BULL. 22 (2008). See also, M. Krasner et al., *Association of an Educational Program in Mindful Communication with Burnout, Empathy, and Attitudes Among Primary Care Physicians*, 302 JAMA 1284 (2009).

64. N. Goldberg, *Rules for a Long-term Relationship: Do Whatever Works Until It No Longer Works*, TRICYCLE MAG., (Summer 2016), <https://tricycle.org/magazine/rules-for-a-long-term-relationship/>.

typically depends on the regularity of one's mindfulness practice. In this regard, the metaphor of working out at a gym, practicing scales on a musical instrument, or practicing one's golf swing or tennis stroke is apt. By doing so, we develop and reinforce the very skills we draw upon when it is time to perform.

Focused Attention

The judge is presiding over a lengthy trial or hearing. The evidence is technical in nature, the presentation of it is tedious and difficult to attend to, and the law is complex. The judge finds her mind wandering, and this is stressful, as the judge knows she must, in the end, have a command of the evidence and the law to make her ruling. The hearing is also taking longer than it should, and this further distracts the judge, who worries about how this will affect her schedule; she is feeling increasingly stressed.

Here, in addition to the challenge of the legal task at hand, the judge has the added challenge of staying focused. Further complicating matters, she is feeling worried about losing focus and not comprehending the material and feels pangs of unease at the thought of not managing her workload. The judge's capacity to analyze the evidence and argument, and to make a decision, would certainly be enhanced if she could keep her focus.

The "focused-attention" practice described above, when repeated over time, strengthens the judge's capacity to remain attentive in this setting. This practice is one of repeatedly placing our attention right . . . *here*. When our thoughts take us away from *here*, we notice the thoughts (without being engaged by them), release the thoughts (without engaging in conceptual elaboration about the thought), and return our focus to *here*. We do this over and over again.

A helpful variation on this practice, especially when one experiences agitating emotions, involves labeling one's experience when mind wandering and emotions are noticed. When unbidden thoughts distract us from our focus, as they repeatedly will, we can silently label them in a simple way that acknowledges their content (e.g. "planning," "worrying," "remembering," "excited") and then return to the object of attention. With repetition, this can help us become more skillful at regarding thoughts as . . . thoughts, which come and go. The act of labeling our experience in this way has been found to diminish the response of brain regions activated by emotional agitation and to increase activity in a regions in the cortex associated with cognitive control.⁶⁵ Below is a brief instruction that follows from the "focused attention" instruction provided above.

Labeling Instruction

1. Bring your attention to the sensations of the breath, flowing through the body—following the in-breath, following the out-breath.
2. Rest your attention on the flow of the breath, with the

intention of keeping it there.

3. When you notice your mind wandering, reflect on whether a thought, feeling, or body sensation draws your attention from the breath, and silently say to yourself either "thoughts," "feeling," or "sensation" and bring your attention back to the breath.⁶⁶
4. Do this for as long as you choose, after which you can lift your gaze or open your eyes.

"A post-it note on the bench with the STOP mnemonic might be a useful reminder that this is always available."

This exercise offers a nod to the *arising of agitating content* by acknowledging it in a more cognitive form, and then, through the awareness that accompanies that acknowledgment, returning the attention to the object at hand, *without engaging in the content*. You will likely find that by practicing either the "focused attention" or the "labeling practice," on a regular basis, your concentration will improve, you will be better adept at catching your mind as it begins to wander, and you will experience less emotional agitation.

Along with more "formal" practices, engaged in on a regular basis for a set period of time, very short "informal" practices can also be useful. As noted above, the impact of these very practical and shorter practices will be strengthened by having a daily sitting practice. As you can see from the below example, they are merely variations on the longer themes yet contain the heart of what makes them useful.

A Short Practice: "S.T.O.P."

A short mindfulness practice that many find helpful when they notice their mind wandering or they are feeling agitated is known by the helpful mnemonic "STOP." It stands for:

Stop
Take a Breath
Observe, and
Proceed

A post-it note on the bench with the STOP mnemonic might be a useful reminder that this is always available. When attention is flagging, or agitation is rising, one may find it helpful to practice this short exercise. Importantly, the "taking of a breath" is especially useful when one brings a deliberate and intentional awareness to the sensations of breathing. The "observe" instruction calls for the deliberate resting of attention on an external object (e.g., people in the courtroom, the sounds of talking, and the courtroom architecture) or toward an internal object (e.g., thoughts, feelings, sensations). It can help reclaim focus, regulate emotions or behavior (such as interrupting out

65. M. Lieberman et. al., *Putting Feelings into Words: Affect Labeling Disrupts Amygdala Activity in Response to Affective Stimuli*, 18 PSYCHOL. SCI. 421 (2007).

66. As noted, you may silently label what you detect more specifically, in a simple manner that resonates for you, e.g., "worry." The key is to tag and return, and not get lost in the mental experience.

“There is considerable evidence that mindfulness training benefits judges in their resilience, physical health, well-being, and cognitive functioning.”

of irritation or boredom), or more thoughtfully make a decision, such as calling a recess. This short exercise can be practiced at any time.

Open Monitoring

The judge is presiding over a sentencing. The defendant’s family and victims are present and they pour their hearts out. The defendant’s criminal conduct is also upsetting, as is some of the evidence about the defendant’s childhood experiences, and how his own young children will suf-

fer when he is incarcerated. The judge wants to acknowledge these emotions and the legitimate competing concerns, while keeping his own emotions in check as he aims to reach and convey a considered decision that meets the governing legal standard.

Like the previous vignette, the judge must contend with both the external information (evidence and argument) as well as his own internal emotional response. A judge who has developed some skill at an open-monitoring practice may find that he feels more settled and clear when he engages in this multi-channel processing of information and feelings.

In this practice we widen our attention from a fixed object, such as the breath, in an effort to notice all thoughts, feelings, and sensations of our body. We practice doing this without being drawn into our narratives about our experiences. Again, we may find it helpful to simply label what we notice and return to our open awareness. In this practice we remain curious about body sensations associated with emotion along with the mental narrative that accompanies the emotion. While attention to the body may seem unimportant to judges and lawyers, who are trained in a more cerebral process, this has deep significance for our capacity to perceive clearly, as a felt sense in the body is often a gateway to identifying thoughts and emotions which might influence our decision making and actions.

This repeated practice expands our capacity to be present for the life that is before us without being driven by our desire to hold onto the enjoyable moments and resist the unhappy moments. That is not to say that we suspend preference (we remain human). It is to say that we expand our tolerance for simply being present and aware in joy, sorrow, boredom, and everything in between. The STOP practice described above can serve as a short “open monitoring” practice by being especially engaged amid, and perhaps prolonging, the “Observe” step.

A Short Practice: “Drop the Story, Feel the Energy”

Mindfulness practices are available to us at any moment. At its most simple, we can simply stop and take three conscious breaths. This interruption of the discursive mind can reset our attention to our present experience and dial back any emotional reactivity. It can create a “wedge of awareness” that allow for a more skillful response amid a challenging experience or interaction.⁶⁷

A variation on this practice, popularized by the mindfulness teacher, Pema Chodron,⁶⁸ is particularly useful when we feel agitated. We stop, stand, or sit still; consciously “drop the story” that is the narrative running through our minds; and “feel the energy” in the body. When we are agitated there often is a repetitive loop of thought that is unproductive. We try to redirect our awareness from our thoughts (our head) down to the sensations of our body. Even when used as a brief practice, it can interrupt the tendency to reinforce and build upon the story. The experience is a reminder that thoughts are . . . just thoughts. When we allow for a short break during a continuous stream of thoughts and connect with the body, often our perspective broadens, we establish a steadier cognitive and emotional stance, and sometimes this makes room for new insights. At the very least, we create the potential to catch mind wandering and return to the task at hand.

CONCLUSION

The work of judges is highly consequential for the litigants, lawyers, and society as a whole. Judges are expected to maintain clarity of perception and cognition, accuracy, and judicial temperament while managing large caseloads and performing under deadlines and in the midst of human drama. There is considerable evidence that mindfulness training benefits judges in their resilience, physical health, well-being, and cognitive functioning. Mindfulness practices can meaningfully enhance their capacity for attention and meta-awareness, their working memory, and thus their cognitive function. Engagement in daily mindfulness practice is key, and the practices provided have direct application to some of the vulnerabilities judges encounter and serve as a primer so that judges may begin their own mindfulness practice and judge for themselves the benefits they may offer, personally and professionally.

67. L. Riskin, *Awareness and Ethics in Dispute Resolution and Law: Why Mindfulness Tends to Foster Ethical Behavior*, 50 S. TEX. L. REV. 493 (2009).

68. S. Rogers, *Mindfulness, the Holidays and the Stories We Tell Ourselves*, DADE COUNTY BAR ASS’N BULL., (Dec. 2017), at 5.



functional neuroimaging. Her laboratory studies the neural bases of attention and the effects of mindfulness-based training programs on cognition, emotion, and resilience. With grants from the Department of Defense and several private foundations, she has been systematically investigating the potential applications of mindfulness training in education, corporate, elite sports, and the military contexts.

